

Patent  
Serial No. 10/542,910

Appeal Brief in Reply to Final Office Action of December 5, 2008,  
and Advisory Action of February 19, 2009

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

|  |                            |
|--|----------------------------|
| In re Application of   | Atty. Docket               |
| GUOFU ZHOU ET AL.  | NL 030091                  |
|  | Confirmation No. 1807      |
| Serial No. 10/542,910  | Group Art Unit: 2629       |
| Filed: JULY 20, 2005   | Examiner: MANDEVILLE, J.M. |
| Title: ELECTROPHORETIC DISPLAY PANEL AND DRIVING METHOD THEREFOR |                            |

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P.O. Box 1450  
Alexandria, VA 22313-1450

APPEAL BRIEF

Sir:

Appellants herewith respectfully present a Brief on Appeal as follows, having filed a Notice of Appeal on March 2, 2009:

REAL PARTY IN INTEREST

The real party in interest in this appeal is the assignee of record Koninklijke Philips Electronics N.V., a corporation of The Netherlands having an office and a place of business at Groenewoudseweg 1, Eindhoven, Netherlands 5621 BA.

RELATED APPEALS AND INTERFERENCES

Appellants and the undersigned attorney are not aware of any other appeals or interferences which will directly affect or be directly affected by or having a bearing on the Board's decision in the pending appeal.

STATUS OF CLAIMS

Claims 1 and 3 are pending in this application, where claims 2, 4 and 6-9 had been canceled. Claims 1 and 3 are rejected in the Final Office Action mailed in December 5, 2008. This rejection was upheld, in the Advisory Action that was mailed on February 19, 2009. Claims 1 and 3 are the subject of this appeal.

STATUS OF AMENDMENTS

Appellants filed on February 4, 2009 an after final amendment in response to a Final Office Action mailed December 5, 2008. The after final amendment canceled claims 2, 4 and 6-9 and did not include any other amendments. In an Advisory Action mailed on February 19, 2009, it is indicated that the after final amendment filed on February 4, 2009 will be entered but does not place the application in condition for allowance. This Appeal Brief is in response to the Final Office Action mailed December 5, 2008, that finally rejected claims 1-4 and 6-9, which remain finally rejected in the Advisory Action mailed on February 19, 2009.

SUMMARY OF THE CLAIMED SUBJECT MATTER

The present invention, for example, as recited in independent claim 1 and shown in FIGs 1-2, is directed to an electrophoretic display panel (1). As shown in FIGs 1-2 and described on page 5, line 30 to page 6, line 6 of the specification, the electrophoretic display panel (1), for displaying a picture corresponding to image information, comprises an electrophoretic medium (5) comprising charged particles (6); a plurality of picture elements (2); and first and second electrodes (3, 4) associated with each picture element (2) for receiving a potential difference.

As shown in FIG 1 and described on page 6, lines 19-25 of the specification, the electrophoretic display panel (1) further includes drive means such as a driver or controller (100). As shown in FIGs 1-2 and described on page 6, lines 10-19, the charged particles (6) are able to occupy a position being one of extreme positions near the electrodes (3, 4) and intermediate positions in between the electrodes (3, 4) for displaying the picture.

As shown in FIG 1 and described on page 6, lines 19-25, the

driver (100) is arranged for controlling the potential difference of each picture element (2): (a) to be a reset potential difference having a reset value and a reset duration for enabling particles (6) to substantially occupy one of the extreme positions, and (b) subsequently to be a picture potential difference for enabling the particles (6) to occupy the position corresponding to the image information.

As shown in FIG 1 and described on page 6, lines 23-34, the driver (100) is further arranged for controlling the reset potential difference of each picture element (2) of at least a number of the picture elements (2) to have an additional reset duration. As shown in FIGs 1 and 4A-4B and described on 7, line 29 to page 8, line 21, the driver is further arranged for controlling the reset potential difference of each picture element (20) to enable particles (6) to occupy the extreme position which is closest to the position of the particles (6) which corresponds to the image information.

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 2, 4 and 6-9 of U.S. Patent Application Serial No. 10/542,910 comply with 35 U.S.C. §112, first paragraph.

Whether claims 2, 4 and 6-9 of U.S. Patent Application Serial No. 10/542,910 comply with 35 U.S.C. §112, second paragraph.

Whether claims 1-7 of U.S. Patent Application Serial No. 10/542,910 is unpatentable under 35 U.S.C. §103(a) over U.S. Patent Application Publication No. 2002/0005832 (Katase) in view of U.S. Patent Application Publication No. 2003/0137521 (Zehner).

Whether claims 8-9 of U.S. Patent Application Serial No. 10/542,910 is unpatentable under 35 U.S.C. §103(a) over Katase and Zehner in view of U.S. Patent Application Publication No. 2002/0196207 (Machida).



ARGUMENT

Claims 2, 4 and 6-9 are said to fail to comply with 35 U.S.C.  
§112, first paragraph.

It is respectfully submitted that the cancellation of claims 2, 4 and 6-9 renders moot this rejection with regard to these claims.

Claims 2, 4 and 6-9 are said to fail to comply with 35 U.S.C.  
§112, second paragraph.

It is respectfully submitted that the cancellation of claims 2, 4 and 6-9 renders moot this rejection with regard to these claims.

Claims 1-7 are said to be unpatentable over Katase in view of  
Zehner.

Appellants respectfully request the Board to address the patentability of independent claim 1, and further claim 3 as

depending from claim 1, based on the requirements of independent claim 1. This position is provided for the specific and stated purpose of simplifying the current issues on appeal. However, Appellants herein specifically reserve the right to argue and address the patentability of claim 3 at a later date should the separately patentable subject matter of claims claim 3 later become an issue. Accordingly, this limitation of the subject matter presented for appeal herein, specifically limited to discussions of the patentability of claim 1 is not intended as a waiver of Appellants' right to argue the patentability of the further claims and claim elements at that later time.

Katase is directed to a method for driving an active matrix electrophoretic display where differential voltages are applied to pixels. The differential voltages are calculated on the basis of a difference between a current average position of pigment particles and a subsequent desired position. Paragraphs [0069] and [0094], and FIGs 3, 6, 8, 11, 14-15, 17-18, 22-23, 29-31, and 33-35 disclose that a reset data (Drest) having a level of Vrest is used for attracting pigment particles 3 to the pixel electrodes 104 so

that their positions are initialized.

It is alleged on page 8, paragraph 1, last sentence of the Final Office Action, that "the reset potential difference can enable particles to occupy either extreme position)."

It is respectfully submitted that Katase specifically discloses in Paragraph [0102] that:

the reset voltage Vrest is negative compared to the common voltage Vcom of the common electrode, because the pigment particles are positively charged.  
(Emphasis added)

That is, the Katase particles are directed towards one extreme position by applying a voltage having an apposite polarity to attract the particles to one extreme position. Even, assuming arguendo, that Katase discloses a reset data signal that allows particles to occupy either extreme position, there is still no disclosure or suggestion of the present invention as recited in independent claim 1 which, amongst other patentable elements, recites (illustrative emphasis provided):

the drive means are further arranged for controlling the reset potential difference of each picture element to enable particles to occupy the extreme position which is closest to the position of

the particles which corresponds to the image information.

The allegation that the Katase reset data signal allows particles to occupy either extreme position still does not disclose or suggest any relationship between the current position of particles and their final or extreme position, let alone disclose or suggest controlling the reset potential difference of each picture element to enable particles to occupy the extreme position which is closest to the position of the particles which corresponds to the image information, as recited in independent claim 1.

Further, pages 8-9 of the Final Office Action allege that FIGs 8-10 and Paragraphs [002], [0005]-[0006], [0066]-[0067], [0150] [0169]-[0175] of Zehner disclose or suggest controlling the reset potential difference of each picture element to enable particles to occupy the extreme position which is closest to the position of the particles which corresponds to the image information, as recited in independent claim 1, because the Zehner "reset potential difference can enable particles to occupy either extreme position." (Final Office Action, page 9, line 6).

It is respectfully submitted that similar to Katase, Zehner does not disclose or suggest "controlling the reset potential difference of each picture element to enable particles to occupy the extreme position which is closest to the position of the particles which corresponds to the image information," as recited in independent claim 1.

Rather, Zehner merely discloses in Paragraph [0150] that a "step 304 is a "reset" step in which all the pixels of the display are driven alternately to their black and white states." (Emphasis added) Further, FIGs 2, 4a-4B and 16A-1C in conjunction with Paragraphs [0150] and [0169]-[0175] of Zehner merely describe using flashes of alternating positive and negative voltages as a reset step that move charges particles to pixel extremes, near the electrodes.

There is simply no teaching or suggestion in Katase and Zehner, alone or in combination, any drive means "arranged for controlling the reset potential difference of each picture element to enable particles to occupy the extreme position which is closest to the position of the particles which corresponds to the image

information," as recited in independent claim 1. Machida is cited to allegedly show other features and does not remedy the deficiencies in Katase and Zehner.

Accordingly, it is respectfully submitted that independent claim 1 is allowable, and allowance thereof is respectfully requested. In addition, it is respectfully submitted that claim 3 is also allowable at least based on its dependence from independent claim 1. Further, it is respectfully submitted that the cancellation of claims 2 and 4-7 renders moot this rejection with regard to these claims.

Claims 8-9 are said to be unpatentable over Katase and Zehner in view of Machida.

It is respectfully submitted that the cancellation of claims 8-9 renders moot this rejection with regard to these claims.

In addition, Appellants deny any statement, position or averment of the Examiner that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of

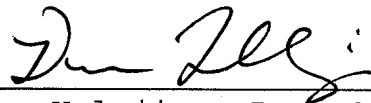
argument not addressed would appear to be moot in view of the presented remarks. However, the Appellants reserve the right to submit further arguments in support of the above stated position, should that become necessary. No arguments are waived and none of the Examiner's statements are conceded.

CONCLUSION

Claims 1 and 3 are patentable over Katase, Zehner and Machida.

Thus, the Examiner's rejections of claims 1 and 3 should be reversed.

Respectfully submitted,

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April 27, 2009

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## CLAIMS APPENDIX

1. (Previously Presented) An electrophoretic display panel,  
for displaying a picture corresponding to image information,  
comprising:

an electrophoretic medium comprising charged particles;

a plurality of picture elements;

a first and a second electrode associated with each picture  
element for receiving a potential difference; and

drive means,

the charged particles being able to occupy a position being  
one of extreme positions near the electrodes and intermediate  
positions in between the electrodes for displaying the picture, and

the drive means being arranged for controlling the potential  
difference of each picture element

to be a reset potential difference having a reset value and a  
reset duration for enabling particles to substantially occupy one  
of the extreme positions, and subsequently

to be a picture potential difference for enabling the particles to occupy the position corresponding to the image information,

wherein

the drive means are further arranged for controlling the reset potential difference of each picture element of at least a number of the picture elements to have an additional reset duration; and the drive means are further arranged for controlling the reset potential difference of each picture element to enable particles to occupy the extreme position which is closest to the position of the particles which corresponds to the image information.

Claim 2 (Canceled)

3. (Previously Presented) The display panel as claimed in claim 1 wherein each picture element is one of the number of the picture elements.

Claims 4-9 (Canceled)

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## **EVIDENCE APPENDIX**

None

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#### RELATED PROCEEDINGS APPENDIX

None